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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/524,116	02/10/2005	Erik Eric Daniel Moens	MOEN3003/JEK	2141

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EXAMINER

WEINSTEIN, LEONARD J

ART UNIT	PAPER NUMBER
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3746

MAIL DATE	DELIVERY MODE
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05/15/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/524,116

Applicant(s)

MOENS, ERIK ERIC DANIEL

Examiner

Leonard J. Weinstein

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 February 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>06/24/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: Page 13 - the last sentence of the disclosure, is not a complete sentence.

Appropriate correction is required.

Claim Objections

2. Claims 14-17 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claims 14 and 15 recite limitations that are broader than the claim of which they depend. Claims 16-17 are objected to as being dependent on an improper dependent claim.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 2, 7-8, and 11-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where

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broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949).

- a. In the present instance, claim 2 recites the broad recitation "the hysteresis upper temperature limit (HMAX) is somewhat lower than the maximum admitted critical threshold value", and the claim also recites "in particular is less than 20° C lower than said critical threshold value", which is the narrower statement of the range/limitation.
 - b. In the present instance, claims 7 recites the broad recitation "measured with a certain periodicity", and the claim also recites "at least one per minute, and preferably continuously", which is the narrower statement of the range/limitation. Claim 8 is rejected as being dependent on claim 7 of the instant application.
 - c. In the present instance, claim 11 recites the broad recitation "range larger than 2.5", and the claim also recites "preferably between 2.7 and 3.5", which is the narrower statement of the range/limitation.
 - d. In the present instance, claim 12 recites the broad recitation "between 150° C to 350° C", and the claim also recites "between 200° C to 300° C" which is the narrower statement of the range/limitation.
6. Claim 13 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The steps directed toward a method are omitted entirely.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1, 4-6, and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Kobayashi et al. 4,662,185. Kobayashi teaches all the limitations as substantially claimed for an improvement including: a compressor element 7 with a gas inlet and a gas outlet, a sensor (S - Kobayashi) to determine the outlet temperature (T_A) in the gas outlet, a sensor to determine the rotational speed (N) of the compressor element (col. 4 ll. 28-40), a motor 6 with adjustable speed, and a control device 5 for this motor 6, characterized in that the compressor 7 is provided with a dynamic speed limiter which comprises what is called a hysteresis module (col. 3 ll. 22-24), coupled to the control device 5 and to the sensors (S of Kobayashi, and col. 4 ll. 28-40) for the outlet temperature (T_A) and the rotational speed (N), whereby a hysteresis upper temperature limit (temperature corresponding to condition of -Dm) has been defined in this hysteresis module, and an admitted maximum speed range (col. 3 ll. 41-45) which is determined by a minimum rotational speed (N_{min}) and a maximum rotational speed (N_{max}), and as soon as the measured outlet temperature (T_A) reaches the specified hysteresis upper temperature limit (temperature corresponding to condition of -Dm), the actual rotational speed (N) of the compressor element 7 is either lowered with a speed jump (ΔN) when the measured rotational speed (N) is situated in the high speed range close to the maximum (N_{max}) rotational speed (col. 2 ll. 48-50), or is increased with a speed jump (ΔN) when the measured rotational speed (N) is situated in the low speed range close to the minimum (N_{min}) rotational

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speed (col. 2 ll. 52-62); a hysteresis lower temperature limit (temperature corresponding to condition of +Dn) has been defined in the hysteresis module (col. 3 ll. 22-24) whereby, as soon as the measured outlet temperature (T_A) reaches the specified hysteresis lower temperature limit (temperature corresponding to condition of +Dn), the actual rotational speed of the compressor element is either raised when the measured rotational speed is situated in the highest speed range close to the critical maximum (N_{max}) rotational speed (col. 2 ll. 48-50), or is lowered when the measured rotational speed is situated in the lowest speed range close to the critical minimum (N_{min}) rotational speed (col. 2 ll. 52-62); a hysteresis module (col. 3 ll. 22-24) is configured such that, as soon as the measured outlet temperature (T_A) reaches the hysteresis lower temperature limit (temperature corresponding to condition of +Dn), the entire maximum speed range ($N_{max}-N_{min}$) becomes available again (col. 2 ll. 48-50); a speed jump (ΔN) can be adjusted when the hysteresis upper temperature limit (temperature corresponding to condition of -Dm) is reached (col. 1 ll. 49-51); a control capable of adjusting a speed jump (ΔN) such that a resulting decrease (ΔD) of the outlet temperature (T_A) is always smaller than the difference between the hysteresis upper temperature limit (temperature corresponding to condition of -Dm) and the hysteresis lower temperature limit (temperature corresponding to condition of +Dn) (col. 2 ll. 52-62); and a control device being provided with at least one safety device (col. 3 ll. 18-22) in order to prevent extreme (N_{MAX}) conditions.

Allowable Subject Matter

9. Claim 9 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure are cited on form 892 herewith.

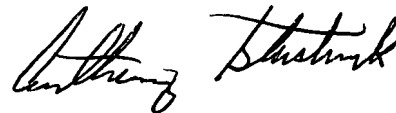
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonard J. Weinstein whose telephone number is 571-272-9961. The examiner can normally be reached on Monday - Thursday 7:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Stashick can be reached on 571-272-4561. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



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